

Palmetto AVIATION

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Low flights not frivolous exercise for Shaw pilots

If you've ever been cruising along in your 172 or whatever and been startled by a flight of F-4's tearing along below you, down on the deck, you may have wondered what they were doing and where they were going.

The 363rd Tactical Reconnaissance Wing at Shaw AFB is constantly conducting low level, high speed training exercises to keep its pilots proficient for combat situations. High speed, low level runs (as low as 100 feet AGL) is a proven way to avoid enemy radar detection going to or from a target. To maintain their proficiency, Shaw pilots practice along published Military Training Routes (MTRs).

To familiarize general aviation pilots with these routes and operating areas, we have included three charts in this edition of Palmetto Aviation. Also on page 7, there is an article written by a Shaw AFB officer explaining the MTR's.

Boys Home Benefit Airshow set Sept. 14 at Anderson

Top rated aerobatic Pilots from around the Southeast will perform at the Anderson Airport Sunday, Sept. 14 in the annual Boys Home of the South Airshow.

This year's show, the 15th annual event, includes seven aerobatics acts, a flying demonstration of World War II warbirds and lots of aircraft on static display.

The day will begin with plane rides around Anderson and the Lake Hartwell area. These rides will be offered for a \$4 donation from 10 a.m. until 1:30 p.m. and again after the show. The airshow will begin at 2 p.m. with a parachute jump by an aerial color guard team. Pilots performing in this year's three hour show include:

REID GARRISON, Owner and operator of Anderson Aviation, putting his DeHavilland Chipmunk through several thrilling maneuvers including the dangerous "tail slide."



RUSS APPLETON, director of flight operations for Eagle Aviation, will be flying his lightning-fast Pitts Special in such maneuvers as the reverse Cuban 8 and a knife-edge pass where the plane is held in the air only by the skill of the pilot.

BOBBY JONTE, owner and president of Ag-Air, Inc. will be performing precision low-level aerobatics in his WWII AT-6 Texan, the plane that was used to train more American combat pilots than any other aircraft.

DWIGHT CROSS, a Chevrolet dealer from Huntersville, N.C., will treat the crowd to an action-packed, non-stop routine in his Pitts Special.

DR. BUTCH HARBOLD, a practicing cardiologist from Charlotte, N.C. will be looping, rolling and spinning his modified Royal Canadian Air Force Super Chipmunk across the sky at speeds in excess of 225 mph.

"**THE FLYING MAYOR.**" Byrd Mapoles, resident and former mayor of Milton, Fla., will perform such maneuvers as an outside loop and inverted ribbon cutting in his Super Decathlon.

BOB ABERNATHY, an Eastern Airlines

Continued on back page

Mid-air Collision avoidance (MACA)

In the interest of flight safety, the Aeronautics Commission and the Shaw AFB MACA Committee would like to educate the general aviation community about the concentration and activities of military air traffic in South Carolina.

Included in this issue are three charts we feel are important and recommend you remove and use in your daily flight planning.

- Shaw AFB TRSA, Page 3
- Military Training Routes, Pages 4, 5
- O-2 Operating areas, Page 6



PALMETTO AVIATION is an official publication of the South Carolina Aeronautics Commission. It is designed to inform members of the aviation community, and others interested in aviation, of local developments in aviation and aviation facilities and to keep readers abreast of national and international trends in aviation.

The Aeronautics Commission is a state agency created in 1935 by the S.C. General Assembly to foster and promote air commerce within the state.

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Beaufort airport may be finished in mid-October

Work is proceeding on final grading and clearing at Lady's Island Airport in Beaufort County and predictions are that the runway will be paved and open for use in the second week of October.

Beaufort County Administrator Mike O'Neil said workmen are going "helter skelter" on the project and that the surface is almost up to grade.

The County received a \$611,000 grant from the Federal Aviation Administration for construction of the airport. Bids on the project were opened last May, but a \$133,000 shortfall delayed work on the project. Recently the FAA notified county officials that additional funding would be made available. Now, O'Neil said, there is enough money to pave and light the 3,400 foot runway.

Airmanship certificates

Persons who attended the Airmanship Refresher Course which was broadcast over closed circuit TV to area TEC centers during May, are entitled to a certificate for completing the course.

If anyone has not received their certificate, please call Elaine Seybt (pronounced Sip) at the Commission offices at 758-2766.

Aviation Calendar

October 11 - 13

Flight Instructor Refresher Course, Columbia. For info. call 301/951-3969.

October 17 - 19

EAA fly-in, Camden. Warbirds and antiques.

October 23

Seminar for corporate pilots, Eagle East Hangar, Columbia.

Breakfast Club



Sept. 14

Gastonia

Sept. 28

Lancaster

Oct. 12

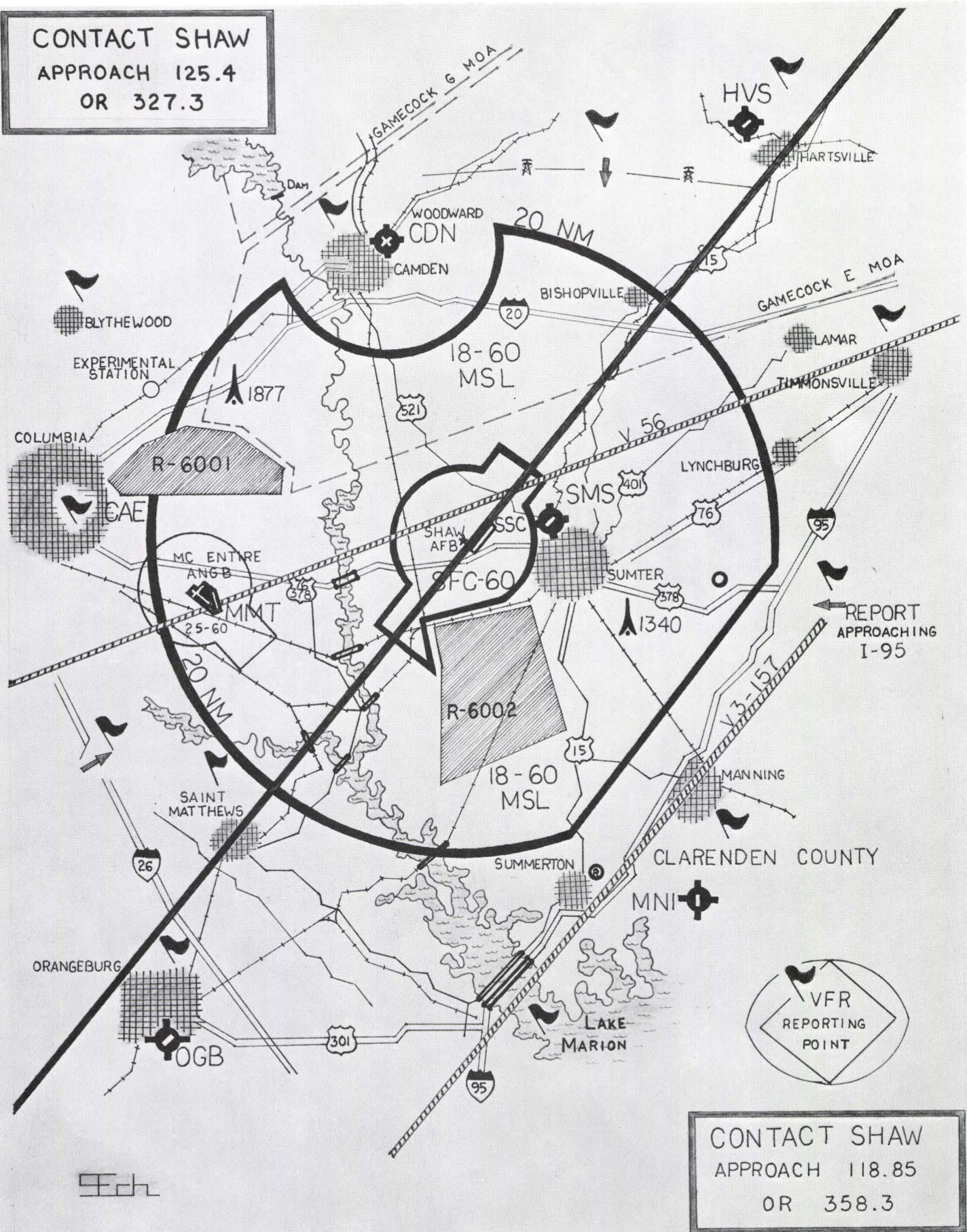
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Oct. 26

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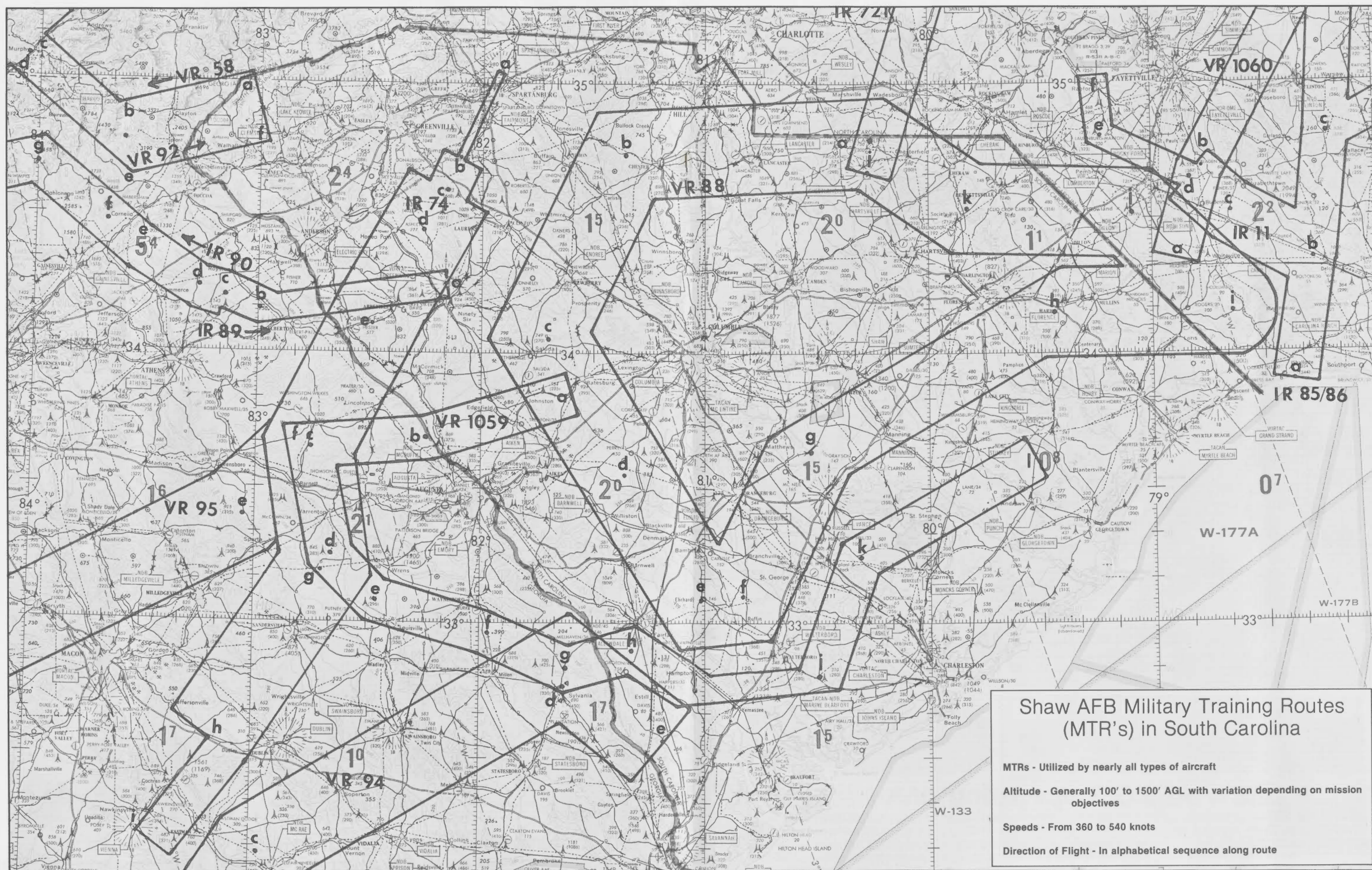


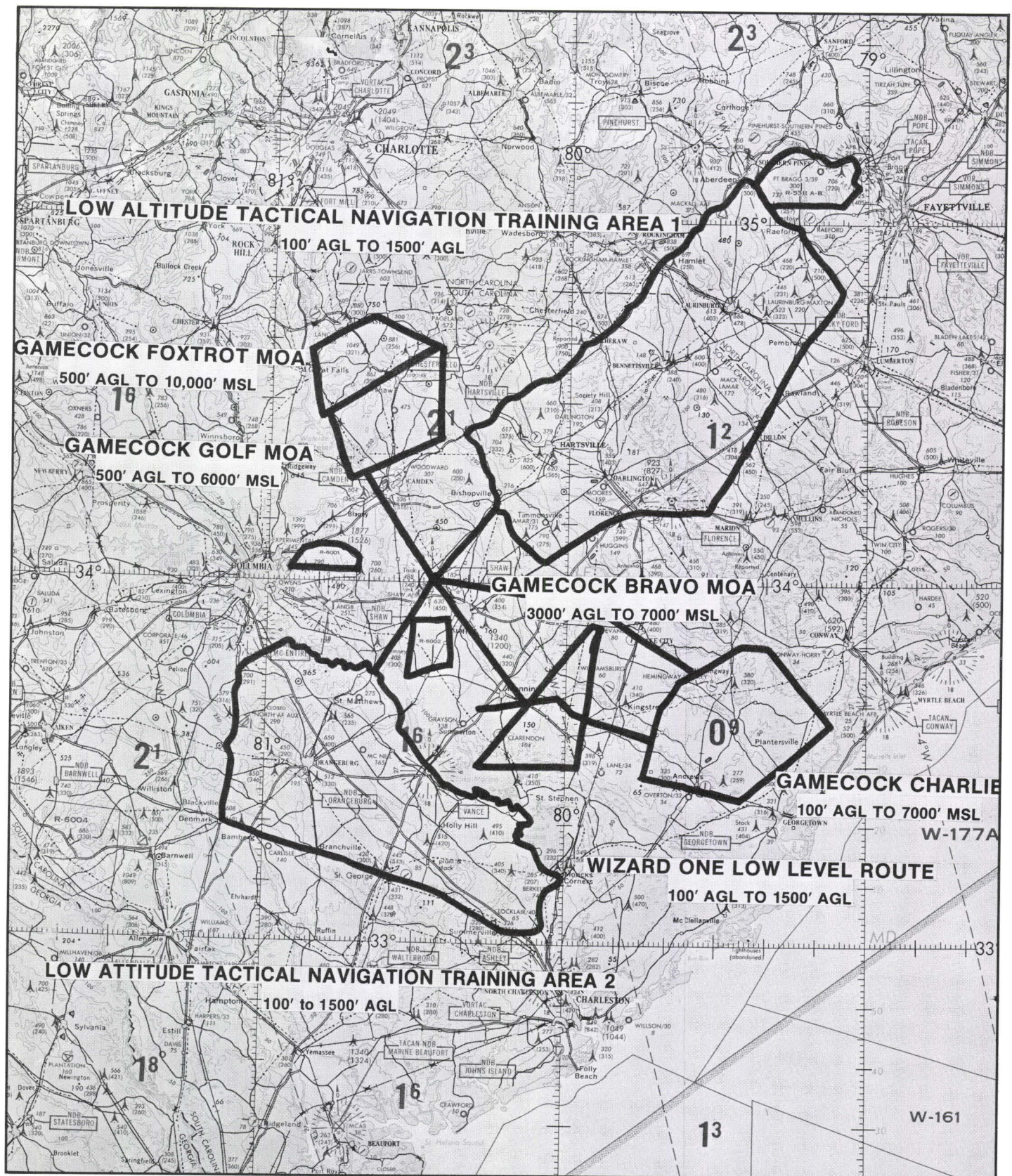
CONTACT SHAW
APPROACH 125.4
OR 327.3



Shaw AFB Terminal Radar Service Area

Contact Shaw Approach Control on the appropriate frequency for Stage III radar service. If you do not wish to utilize the service squawk the appropriate Mode 3 Code (and Mode C, if available).





Shaw AFB 0-2 operating areas

0-2 observation aircraft (twin-engine Skymasters) will be operating in the Gamecock Military Operations Areas (MOAs) usually with flights of high speed jet aircraft. MOA's are designated for nonhazardous activities, which by virtue of the required maneuvers, reduces the pilot's capability to see and avoid. Nonparticipating IFR traffic is separated from MOA participants, and charting of MOAs alerts nonparticipating VFR traffic of locations where aerobatic maneuvers or high speed operations are conducted.

MTRs allow low level penetration

A Military Training Route (MTR) allows military aircraft to fly below 10,000 feet mean sea level (MSL) at speeds in excess of 250 knots indicated airspeed. These routes are jointly developed by the Federal Aviation Administration and the Department of Defense.

There are two types of MTRs used by the 363 Tactical Reconnaissance Wing stationed at Shaw AFB in Sumter. The two are known as Instrument Flight Rule Military Training Routes (IR) and Visual Flight Rule Military Training Routes (VR). IR routes are flown using Instrument Flight Rules regardless of weather conditions. VR routes are flown only in visual meteorological conditions. Most of these routes are flown at 500 feet above ground level (AGL) and from 420 - 540 knots ground speed. However, some routes, after being checked by senior Instructor Pilots and Weapon System Officers, can be flown as low as 100 feet AGL. During flight planning, crews will annotate their charts with noise sensitive areas (hospitals, schools and poultry farms, etc). They also plan to avoid controlled airfields by a minimum of 3000 feet AGL or five statute miles and uncontrolled airfields by at least 1500 feet AGL or three nautical miles.

These routes allow reconnaissance aircrews to practice their wartime missions against various tactical targets and simulated enemy air defenses. Since the Vietnam War these defenses have become increasingly sophisticated. The improvements have been in both the tracking equipment and in the weapons themselves.

Many of the newer surface-to-air missile systems can now effectively track, fire at, and destroy an aircraft flying at altitudes less than 500 feet AGL. To counter these defenses it has become increasingly necessary to fly at low altitudes and high speeds. Using these tactics, the unarmed RF-4Cs based at Shaw hope to penetrate enemy air defenses, perform their reconnaissance mission, and return safely.

For further information, call the 363rd TRW Airspace Management office at 803/668-8110.

FAA wants to return to bigger tail numbers

FAA thinks bigger is better where aircraft registration numbers are concerned.

The agency says the present three-inch minimum markings permitted on most general aviation aircraft are creating air traffic control problems at busy airports because they are difficult to read from the ground. In many cases, this delays the visual identification of the aircraft by controllers and interferes with the safe and efficient flow of traffic.

FAA also has received complaints from various law enforcement agencies which contend the small markings make it difficult to identify aircraft engaged in smuggling, illegal hunting and other criminal activities.

The solution to these problems is a return to the old 12-inch minimum marking standard, FAA says, and it has proposed a rule that would require that action. This standard was relaxed in 1977 to permit the smaller markings on aircraft with a maximum speed not exceeding 180 knots. The change was requested by general aviation groups who wanted the smaller number for esthetic reasons.

Certain aircraft would not be affected by the FAA proposal. For example, gliders and amateur-built aircraft, as well as exhibition and experimental aircraft in the 180-knot-and-under category could continue to use the three-inch registration markings.

In addition, balloons and airships could display markings as small as three inches. The current minimum requirement is 20 inches.

To ease the cost to aircraft owners who would be affected by adoption of the proposed rule, FAA would permit them to continue using the smaller markings until their aircraft were repainted or the markings themselves were changed. However, the agency might take additional action to speed compliance if the changeover were not achieved within a reasonable period of the time.

Comments on the proposed rule should be sent to FAA's Office of Chief Counsel, Rules Docket (AGC-204), Docket No. 20424, 800 Independence Avenue, SW, Washington, D.C. 20591. The deadline for comments is September 29.

Cathode Ray Terminals installed at Florence

The Florence Flight Service Station writes to tell us that the station has installed and is operating six cathode ray tube (CRT) pilot weather briefing positions for faster service to pilots.

Acting Chief Isadore K. Thornal says the new CRT's and the associated weather processor are capable of fast retrieval of 30 pre-programmed aviation routes and that each route can store up to 25 items of weather information.

"The Florence FSS Weather Processor is directly connected to the Weather Message Switching Center (WMSC) in Kansas City, Mo. and all new pre-programmed weather information is available by five minutes past each hour," Thornal says.

However, he said, "Because WMSC flushes all stored information at 55 minutes past each hour, no new information can be requested until the storage banks reload. This is normally completed no later than five minutes past each hour. In the interim, old pre-programmed

weather information can be obtained from the previous hour."

In addition to the six CRTs mentioned above, two more — one at the Team Supervisor's position and one at the Pilot Automatic Telephone Weather Answering Service — are available to accommodate any overflow of pilot weather briefings, Thornal said.

Probable cause

The National Transportation Safety Board (NTSB) said fatigue fracture of the tail rotor blades resulting in separation of the blades was the probable cause of the crash of a Scorpion Too helicopter, N97521, near Johns Island, South Carolina on March 27, 1979, according to the safety board. The blades separated while the helicopter was at normal cruise. The Scorpion went into an uncontrolled descent and crashed, killing the pilot. The student pilot, 36, had logged 61 hours, all in type.



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Old Warbirds to be Flown at Airshow

Continued from page 1

Captain from Brooks, Ga., will be piloting his 260 hp Super Pitts Special through multiple snap rolls and vertical four-point rolls.

JIM WEBB, the show's announcer for the past 14 years, will be joined this year by **HUGH OLDHAM** of Anderson.

In addition to the aerobatics, the Valiant Air Command will be showing and flying restored WW II warbirds, including a T-6 Texan, T-28 Trojan, P-51 Mustang and a B-25 Mitchell Bomber.

The T-6 and the T-28 were training aircraft used by the U.S. Army Air Corps and the United States Air Force, and, although the T-28 Trojan was later used in Viet Nam as a ground attack aircraft, it is the P-51 and the B-25 that carved their place in history during the Second World War. The P-51 Mustang was perhaps the best piston engine fighter ever built, powered by a 1680 hp Rolls Royce Merlin engine. The P-51 has a maximum speed of 442 mph, and a range of 1710 miles. The Mustang distinguished itself over Europe and the Pacific Theatres during WW II.

The B-25 Mitchell Bomber saw extensive service in all Theatres of the Second World War. It is perhaps best remembered as the aircraft flown from the deck of the U.S.S. Hornet by General James H. Doolittle and his famed team of Tokyo Raiders. The Valiant Air Command's B-25 has been beautifully restored, and is a prime example of one of the most versatile aircraft used by the Army Air Corps.

Admission for the show will be a tax deductible \$3 donation to the Boys Home of the South. Refreshments will be available on the field along with plenty of free parking. Plan now to attend, enjoy an afternoon of family entertainment at the Anderson County Airport, and help the Boys Home of the South in Belton.



Some of the pilots who will be performing in the Anderson Air Show, Sept. 14. from left, announcer Hugh Oldham, pilots Russ Appleton and Bobby Jonte and kneeling, Sony Caraway, maintenance and ground operations.

Report cites \$12.7 billion in potential airport growth

Airport land and construction costs are going up along with just about everything else.

Two years ago, the Federal Aviation Administration published a National Airport System Plan which cited the need to spend \$10.6 billion on airport improvements in the 1978-1987 period.

Now, the agency has issued a revised statistical version of the plan and says that the cost of completing all identified eligible airport development projects in the 1980-1989 period would be \$12.7 billion.

FAA said \$4.4 billion of the \$12.7 billion total would be used to improve the existing airport system and upgrade facilities to current design standards. The remaining \$8.3 billion would go for expansion of present airports to handle larger aircraft and higher traffic volumes and for construction of new airports.

Most of the new airports listed in the plan would be built in smaller communities or urban fringe areas. Included are 402 general aviation (non-airline) air-

ports, 6 commuter airline airports and 52 "reliever" airports to siphon off light plane traffic from large commercial fields.

For the most part, FAA stated, development of new major airports during the 1980-1989 period will be limited to those areas where planning is well underway. It notes that a new facility at Palmdale, Calif., to serve the Los Angeles area may be the only major airport to open in the decade ahead, although construction of a new Atlanta field also could be started.

FAA's National Airport System Plan is a compilation of federally eligible development needs for the nation's civil airports for the decade ahead. It is updated continuously and revised editions are published periodically.

The National Airport System Plan, Revised Statistics for 1980-1989, is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The price is \$10.00.